

What is claimed is:

1. A clutch mechanism of coat film transfer tool comprising:
a feed reel with a coat film transfer tape wound thereabout and a take-up reel for collecting the coat film transfer tape after use, the feed reel and take-up reel rotatably provided in a case that is held and manipulated by one hand, the take-up reel cooperates with the feed reel in the case to synchronize a feed speed and take-up speed of the coat film transfer tape in both reels,

power transmission means is provided between a tape winding portion for winding up the coat film transfer tape and a rotary drive unit for rotating and driving the tape winding portion, the power transmission means is composed in at least one of the feed and take-up reels, and is composed by frictionally and directly engaging with each other engaging portions formed in confronting axial end surfaces of the tape winding portion and the rotary drive unit, and

wherein power transmission of the power transmission means is from a frictional force caused by a thrust load between the tape winding portion and the rotary drive unit, and is connected and disconnected by a difference in torque therebetween, the thrust load, which causes the frictional force, is set by predetermined relational dimensions of the tape winding portion and the rotary drive unit in the axial direction between the tape winding portion and the rotary drive unit.

2. A clutch mechanism of coat film transfer tool of claim 1,

wherein the power transmission means is composed of a first engaging portion formed on an axial end surface of the tape winding portion, and a second engaging portion formed on an axial end surface of the rotary drive unit,

these engaging portions are composed of plural annular ribs provided concentrically with the tape winding portion and rotary drive unit, and these annular ribs have an angle section formed of a pair of slopes, and

the annular ribs of the first and second engaging portions frictionally mutually contact on the slopes.

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3. A clutch mechanism of coat film transfer tool of claim 1,
wherein the power transmission means is composed of a first engaging
portion formed on an axial end surface of the tape winding portion, and a
second engaging portion formed on an axial end surface of the rotary drive
unit,

one of first and second engaging portions is formed on a flat plane, and
the other of the first and second engaging portions is composed of plural
annular ribs, and

the flat plane and leading ends of the annular ribs frictionally contact
with each other.

4. A clutch mechanism of coat film transfer tool of claim 1,
wherein the power transmission means is composed of a first engaging
portion formed on an axial end surface of the tape winding portion, and a
second engaging portion formed on an axial end surface of the rotary drive
unit,

one of the first and second engaging portions is formed on a flat plane,
and the other of the first and second engaging portions is composed of
multiple radial ribs formed at equal intervals in a circumferential direction, and
the flat plane and leading ends of the radial ribs frictionally contact with
each other.

5. A clutch mechanism of coat film transfer tool of claim 1,
wherein the power transmission means is composed of a first engaging
portion formed on an axial end surface of the tape winding portion, and a
second engaging portion formed on an axial end surface of the rotary drive
unit,

the first engaging portion is formed on a flat plane, and the second
engaging portion is composed of plural engaging protrusions having elasticity
in the axial direction, the plural engaging protrusions formed at equal intervals
in the circumferential direction, and

the flat plane and leading ends of the radial ribs frictionally contact with
each other.

6. A clutch mechanism of coat film transfer tool of claim 1,

wherein the power transmission means is composed of a first engaging portion formed on an axial end surface of the tape winding portion, and a second engaging portion formed on an axial end surface of the rotary drive unit,

the first engaging portion is composed of plural engaging protrusions having elasticity in the axial direction, the plural engaging protrusions formed at equal intervals in the circumferential direction, and the second engaging portion is formed on a flat plane, and

leading ends of engaging protrusions and the flat plane frictionally contact with each other.

7. A clutch mechanism of coat film transfer tool of claim 1,

wherein the power transmission means is composed of a first engaging portion formed on an axial end surface of the tape winding portion, and a second engaging portion formed on an axial end surface of the rotary drive unit,

the first engaging portion is an annular engaging flange having elasticity in the axial direction, and the second engaging portion is formed on a flat plane, and

leading ends of the engaging flange and the flat plane frictionally contact with each other.

8. A clutch mechanism of coat film transfer tool of claim 1,

wherein a position defining unit is provided for suppressing distance between axial end surfaces of the tape winding portion and the rotary drive unit within a set value.

9. A coat film transfer tool using a coat film transfer tape of disposable type, comprising:

a case having shape and dimensions to be held and manipulated by one hand,

a feed reel rotatably provided in the case and winding a coat film transfer tape,

a take-up reel rotatably provided in the case and collecting the coat film transfer tape after use,

an interlock means for linking said feed and take-up reels so as to cooperate with each other, and

a coat film transfer head protruding at a front end of the case and pressing the coat film transfer tape onto an object of transfer,

a clutch means for synchronizing, at least in one of the feed and take-up reels, a feed speed and take-up speed of the coat film transfer tape between the feed and take-up reels,

wherein the clutch means composes, at least in one of the feed and take-up reels, power transmission means provided between a tape winding portion for winding up the coat film transfer tape and a rotary drive unit for rotating and driving the tape winding portion, and is composed by frictionally engaging with each other engaging portions formed in confronting axial end surfaces of the tape winding portion and the rotary drive unit, and

wherein power transmission of the power transmission means is from a frictional force caused by a thrust load between the tape winding portion and the rotary drive unit, and is connected and disconnected by a difference in torque therebetween, the thrust load, which causes the frictional force, is set by predetermined relational dimensions of the tape winding portion and the rotary drive unit in the axial direction between the tape winding portion and the rotary drive unit.

10. A coat film transfer tool of claim 9, further comprising:

a tape rewinding mechanism for eliminating and removing slack of the coat film transfer tape between the two reels,

wherein the tape rewinding mechanism has an axial free end of the tape winding portion for winding the coat film transfer tape provided oppositely to the outside of the case in the feed reel, and a rewinding operation unit is integrally formed at the end surface of said free end.

11. A coat film transfer tool of claim 10,

wherein the clutch means is provided in both the feed reel and take-up reel.

12. A coat film transfer tool using a coat film transfer tape of refill type, comprising:

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a case having shape and dimensions to be held and manipulated by one hand,

a feed rotary unit rotatably provided in the case,

a take-up rotary unit rotatably provided in the case,

an interlock means for linking the feed and take-up rotary units so as to cooperate with each other

a tape cartridge having a feed reel and a take-up reel engaged detachably and rotatably with both the feed and take-up rotary units respectively, and

a coat film transfer head protruding at a front end of the case and pressing the coat film transfer tape onto an object of transfer,

a clutch means for synchronizing, in at least one of the feed and take-up rotary units, a feed speed and take-up speed of the coat film transfer tape in the feed and take-up rotary units,

wherein the clutch means composes, at least in one of the feed and take-up rotary units, power transmission means provided between a tape winding portion for winding up the coat film transfer tape and a rotary drive unit for rotating and driving the tape winding portion, and is composed by frictionally engaging with each other engaging portions formed in confronting axial end surfaces of the tape winding portion and the rotary drive unit, and

wherein power transmission of the power transmission means is from a frictional force caused by a thrust load between the tape winding portion and the rotary drive unit, and is connected and disconnected by a difference in torque therebetween, the thrust load, which causes the frictional force, is set by predetermined relational dimensions of the tape winding portion and the rotary drive unit in the axial direction between the tape winding portion and the rotary drive unit.

13. A coat film transfer tool of claim 12, further comprising:

a tape rewinding mechanism for eliminating and removing slack of the coat film transfer tape between the two reels,

wherein the tape rewinding mechanism has an axial free end of the tape winding portion for winding the coat film transfer tape provided oppositely

to the outside of the case in the feed reel, and a rewinding operation unit is integrally formed at the end surface of said free end.

14. A coat film transfer tool of claim 12,

wherein the clutch means is provided in both the feed rotary unit and take-up rotary unit.

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